

MEMORANDUM

TO: Todd Lutte (EPA), Frank Plewa (USACE), Rusty Ryan (ACCD), Jack N. Powell, PE & George Tubies
FROM: Jonathan Kasitz
DATE: April 28, 2008
PROJECT NAME: George Tubies Wetland Restoration **PROJECT NO.:** 07-07964-001
SUBJECT: Wetland Restoration Narrative

The following narrative is in regards to George Tubies' property, situated northwest of the intersection of York Road (Route 30) and Granite Station Road, in Straban Township, Adams County. The eastern side of the property has been under investigation for several years, due to the disturbance to a large wetland swale that previously flowed through this portion of the site. The site was initially investigated by RETTEW Associates, Inc. (RETTEW) on November 6, 2007, and was the subject of a wetland restoration plan prepared in January 2008. On April 1, 2008, a meeting to discuss the proposed restoration was held on the subject property, followed by a subsequent meeting at the office of the Adams County Conservation District (ACCD). The results of these meetings were compiled in the Meeting Minutes prepared by RETTEW on April 4, 2008, and submitted to all meeting attendees for review. After no additions or revisions were received from the attendees, RETTEW proceeded to prepare a revised restoration plan, labeled the "Proposed Conditions" plan, last revised April 24, 2008. The following narrative is supplemental to these restoration plans.

General Notes:

- The Proposed Conditions restoration plan must be approved by the EPA and ACCD prior to commencing work.
- The ACCD will be contacted at least 7 days prior to commencing work.
- A copy of the approved restoration plan will be on site during construction.
- A wetland biologist familiar with wetland restoration activities will be on site during all wetland restoration activities to assist and direct the contractor.
- The wetland restoration activities will be performed under the driest conditions possible, and will be started no later than June 31, 2008, and completed no later than August 31, 2008. If for some reason this timeframe is unattainable, the client must receive a written extension from the EPA.
- Any future earth disturbance within the delineated wetlands shown on the "Existing Conditions" plan must have written approval from both the EPA and USACE.

Construction Narrative:

- The contractor will utilize the existing driveway to access the wetland for wetland restoration activities.
- A temporary rock filter will be positioned on the eastern extent of the disturbed wetlands, just upstream of the existing culvert under Granite Station Road. This filter will be constructed of large rocks (R-4 to R-6) found on the site. As shown in the rock filter detail, smaller rocks (#57

or #67 stone) will be placed on the upstream side of the filter to facilitate sediment trapping. This rock filter should be constructed as soon as possible.

- The contractor will grade off the topsoil from the northern side of the disturbed wetlands, storing the topsoil in the manner and location described in the “Proposed Conditions” plan.
 - The contractor will then remove 6-12” of the clay subsoil for use in the construction of check dams.
 - These check dams will be constructed in the manner and location described in the plan, starting from the west, and continuing east. If large logs are available, these will be installed within the graded swale between the check dams. Again, these will be installed in the manner described in the plan, at the discretion of the wetland biologist on site.
 - The existing swale on the Redding Property will be connected to the primary swale by means of a new swale dug south of the delineated wetlands, tying back into the primary swale upstream of the rock filter.
 - The topsoil graded off the disturbed wetland will be re-graded back onto the area between the primary swale and driveway, filling in the slight swale that was excavated along the southern side of the driveway. This area will be graded back to pre-disturbance elevations, which were deemed to be approximately 6-12” below current elevations. The topsoil will also be used to fill in the swale on the northern side of the driveway. A slight crown will be situated immediately north of the driveway, encouraging stormwater to flow in a northerly direction into the wet woods that lie north of the driveway.
 - After all major earth disturbance within or adjacent the restored wetland is complete, the contractor will lightly rake the disturbed areas to facilitate vegetation. These disturbed areas will then be seeded with an annual ryegrass at a rate of 10 lbs per acre, and straw mulched at a rate of 3 tons per acre. This groundcover will serve to protect disturbed areas from erosion, and allow the native seedbank to continue to re-vegetate the restored wetland in subsequent years.
 - After the wetland restoration activities are complete, RETTEW will notify the EPA, USACE and ACCD. Representatives from these agencies will conduct random (unannounced) reviews of the property during the next five years to inspect the status of the wetland restoration.
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